

REMARKS/ARGUMENTS

This amendment is submitted in response to the Office Action dated July 3, 2006. New claim 19 has been added. Claims 1-19 are currently pending in the present application. Basis for new claim 19 is found at page 5, lines 1-3 and page 7, lines 15-20 of the application as originally filed. Reconsideration and allowance is respectfully requested in view of the amendments and the remarks below.

1. The Rejections under 35 U.S.C. §103(a)

Claims 1-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,757,679 to Fritz (hereinafter "Fritz"). The Applicant respectfully submits that a *prima facie* case of obviousness has not been established.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). According to M.P.E.P. § 2143,

To establish a *prima facie* case of obviousness, three basic criteria must be met. **First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.** Second, there must be a reasonable expectation of success. **Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.**

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. [*emphasis added, Citation omitted.*]

The problem solved by the present invention as defined in claim 1 is to provide a method of controlling the creation of a user session in a multi-user computer system that takes into account different levels of resources and/or requests for user sessions, while allowing efficient use of the available resources. The problem is solved by maintaining the maximum number of log-on requests as a variable which can be adjusted. Thus, the maximum number of log-on requests can be adjusted to take into account the availability of computer resources for this purpose. This solution to the problem is not attainable from the teachings of Fritz.

The subject-matter of independent claim 1 differs from the teachings of Fritz in that Fritz does not disclose a method of controlling the creation of a user session, the processing of a log-on request by a user at a terminal, that the creation of the user session is halted when more than a maximum number of log-on requests are being processed, and that the maximum number of log-on requests is maintained as a variable which can be adjusted in the multi-user computer system.

Instead, Fritz teaches a hardware implementation of a queue management system on a chip (See col. 2, lines 27-30 of Fritz). In the hardware implementation of Fritz, the queues consist of m queue-base units representing the m tops of queues (See col. 2, lines 44-45 of Fritz). Each queue-base unit has access to the add- and remove-input lines of the device implementing the queue management system (See col. 2, lines 61-63). The amount of hardware needed for m queues grows linearly with m (See col. 4, lines 13-15 of Fritz). Thus, m is not maintained as a variable which can be adjusted, but rather is a constant determined by the amount of hardware resources included on the chip of Fritz. Thus, the system of Fritz does not maintain the maximum number of log-on requests as a variable that can be adjusted should there be a change in user demand for the computer resources.

The Examiner admits in paragraph 4 of the Office Action that Fritz does not mention that the requestor may be making a log-on request. Thus, since Fritz does not even contemplate the making of log-on requests, a skilled person would certainly not derive from Fritz the concept of maintaining the maximum number of log-on requests as a variable that can be adjusted should there be a change in user demand. In fact, Fritz says nothing about log-on requests and thus clearly lacks two features required to make out a case of *prima facie* obviousness against claim 1 of the present application, namely:

- (1) processing a log-on request entered by a user at a terminal, and
- (2) maintaining the maximum number of log-on requests as a variable that can be adjusted should there be a change in user demand.

Accordingly, Fritz, taken alone, is insufficient to make out a *prima facie* case of obviousness since two important features of claim 1 of the present application are not even mentioned in Fritz.

In addition, the Examiner has relied on a combination of Fritz and common general knowledge to support the present rejection. However, there must be a (1) a suggestion, motivation or teaching that would lead the skilled person to make the combination. The

Examiner has not met his burden of showing that there is a suggestion to modify Fritz to apply its teachings to log-on requests which are not even mentioned in Fritz. Thus, the rejection over Fritz in view of common general knowledge, should be withdrawn.

The Examiner also takes the position in paragraph 3 of the Office Action that, “Fritz discloses the feature of maintaining in the multi-user system (e.g. workstations, LAN, Internet, etc.) as a variable that can be adjusted (e.g. a next-element value of a queue-base pointer that can be set to a value and the next element pointed with added priority than be set or adjusted, see col. 3, lines 4-42).” (emphasis original)

First, the Examiner assumes that Fritz relates to a multi-user system involving workstations, LAN, Internet or a network. However, none of these words actually appears in the text of Fritz and thus there appears to be no basis for this conclusion by the Examiner. Instead, Fritz teaches, “The present invention is further directed to a computer comprising the electronic queue management system described above, as well as to an electronic circuit comprising said electronic queue management system.” See col. 1, lines 59-62 of Fritz. There is no need for a system to maintain the number of log-on requests in either of these environments contemplated by Fritz and thus the skilled person would have no reason to add such a system of maintaining the number of log-on requests to the apparatus of Fritz as the Examiner suggests. In fact, there does not seem to be any indication in Fritz that there will ever be multiple log-on on requests at all.

The Examiner seems to take the position that since workstations, LAN, Internet or a network are well known in the art it would be obvious to use the hardware of Fritz in such a system. This is legally incorrect. The mere fact that something is well known in the art does not mandate that it would be obvious to use any hardware in such a system. The law requires that there be some teaching, suggestion or motivation to combine the hardware of Fritz with since workstations, LAN, Internet or a network and the Examiner has not demonstrated that there is such a teaching, suggestion or motivation.

Second, the Examiner relies on the discussion of the queue at col. 3, lines 4-42 of Fritz as providing a teaching of maintaining the number of log-on requests as a variable that can be adjusted. However, Fritz does not even mention log-on requests. Also, the word, “maximum” is not used in the section at col. 3, lines 4-42 of Fritz and thus it cannot be seen where a skilled

person would get the idea to set a maximum number of log-on requests as a variable from this disclosure.

Instead, the disclosure of Fritz teaches the exact opposite. First, Fritz says that, "In most cases, the maximum number of outstanding requests per requestor o at a given time is limited such that the total number of requests at a given time is $n=oxp$." See col. 2, lines 24-26 of Fritz. Fritz then says that, "In said hardware implementation the queues consist of ... n so-called queue elements representing the n requests. Each request, ... must be associated with a queue element." See col. 2, lines 44-48 of Fritz. Fritz also states that, "The advantage of this implementation is that the amount of hardware needed for n elements grows linearly with n ..." See col. 4, lines 12-13 of Fritz. Thus, it is clear that the number of requests " n " is determined by the number of queue elements built into the hardware implementation. As a result, the number of requests " n " cannot be adjusted since this number is determined by the limitations of the hardware itself.

Since the implementation of Fritz is a hardware implementation, none of the numbers n (the maximum number of possible requests), p (the number of requesters), and o (the maximum number of outstanding requests per requester at a given time) are variables. In fact, each of these numbers are constants, determined by the hardware used to implement the system of Fritz. The Examiner has not shown that Fritz even contemplates varying any of n , p or o .

Thus, Fritz does not provide any teaching as to how to address the problem addressed by the present invention, namely, to allow a limited set of computer resources to efficiently host multiple user sessions on a multi-user computer system. Thus, the entire purpose of the present invention is different from Fritz and the skilled person would not even consider the teachings of Fritz when faced with the problem solved by the present invention.

Apart from failing to demonstrate that an analogous application of the method according to Fritz could result in the present invention, the Office Action does not demonstrate in any way that Fritz offers a motivation, suggestion or incentive to adopt the electronic queues taught therein in a method of controlling the creation of a user session. Because Fritz teaches a hardware implementation of a queue system for implementation on a chip (see abstract), the skilled person setting out to make the invention that is the subject of the present application would not even look to Fritz for guidance as to how to regulate the number of user sessions based on a maximum number of sessions maintained as a variable that can be adjusted. This is

simply because a hardware implementation necessarily results in a fixed maximum number, as determined by the capacity of the hardware, and not a variable maximum number, as claimed.

With respect to the subject matter of independent claims 10 and 14, these claims define a multi-user computer system and computer program for controlling the creation of a user session in a multi-user computer system in terms of features corresponding to those set forth in method claim 1. Consequently, the same arguments and reasoning apply to claims 10 and 14 as are given for claim 1 above.

If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Thus, claims 2-9, 11-13 and 15-18 are considered to be unobvious for at least the same reasons as given above with respect to claims 1, 10 and 14.

For the above reasons, it is submitted that a *prima facie* case for obviousness has not been established since the limitations of the independent claims are not taught or suggested by Fritz. It is therefore submitted that claims 1-18 are in condition for allowance.

2. New Independent Claim 19

New claim 19 has been added by this amendment. New claim 19 contains the requirement that, "...said system including an adjustment mechanism for dynamically adjusting the maximum number of user sessions which can be processed simultaneously." Thus, new claim 19 is considered to be clearly patentable over Fritz for all of the reasons given above with respect to claims 1-18 and the following additional reasons.

First, Fritz does not teach or suggest the provision of an adjustment mechanism for adjusting the maximum number of user sessions which can be processed simultaneously. The underlined words are important since Fritz does not disclose (1) an adjustment mechanism, (2) control of the number of user sessions (Fritz does not even mention user sessions), or (3) adjusting the maximum number of user sessions.

Second, Fritz does not contemplate dynamic adjustment of the maximum number of user sessions since in the hardware implementation of Fritz, the numbers n (the maximum number of possible requests), p (the number of requesters), and o (the maximum number of outstanding requests per requester at a given time) are all constants determined by the amount of hardware

used to build the system. There is no provision for dynamic adjustment of any of these parameters and thus Fritz also does not disclose the dynamic adjustment feature of new claim 19.

Accordingly, for at least these additional reasons, new independent claim 19 is considered to be clearly patentable over Fritz. Favorable consideration and allowance of new independent claim 19 is requested.

3. Conclusion

Reconsideration and allowance is respectfully requested in view of the remarks made above.

Respectfully submitted,



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Date: October 3, 2006

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